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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,170	10/06/2003	David Joseph Kropaczek	24GA6001	2278

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EXAMINER
CRAIG, DWIN M

ART UNIT	PAPER NUMBER
2123	

DATE MAILED: 08/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/678,170	KROPACZEK ET AL.
	Examiner	Art Unit
	Dwin M. Craig	2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>04 May 2006</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7,9-19 and 21-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7, 9-19 and 21-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-7, 9-19 and 21-32 have been presented for reconsideration based on Applicants'

arguments and amended claim language.

Response to Arguments

2.   Applicant's arguments filed 5/4/2006 have been fully considered but are not completely

persuasive.

2.1   Regarding the objections to the claims, the Examiner thanks the Applicants' for

amending the claims and withdraws the previously applied objections to the same.

2.2   Regarding the Applicants' arguments concerning the 35 USC 112 rejections of the

claims, Applicants' argued,

Applicants submit that independent claims 1, 19 and 32 adequately recite a method of

recovering nuclear fuel from a fuel pool by employing a graphical user interface that allows a

user with the capability to selectively populate a loading map, which represents fuel bundles

residing in at least one fuel pool. For example, a computer processor may include a memory

storing at least one fuel pool database. The fuel pool database includes the list of at least

portions of the fuel bundles residing in the fuel pool, and the user may select which of these fuel

bundles to use in creating the loading map.

Further, the Examiner asserts that Applicants' claim preamble sets forth the recovery of

nuclear fuel but the rest of Applicants' claims fail to provide any further steps in performing the

recovery of nuclear fuel". However, the statement by the Examiner appears inconsistent with the

Examiner's previous statement that a "preamble has no patentable weight". Thus clarification is

respectfully requested.

The Examiner will now provide clarification; in the nuclear fuel recovery art the steps required to actually recover the used fuel requires that a newly configured fuel bundle be assembled. Applicants' current claim language fails to provide a step that describes actually placing the fuel bundles in the reactor according to the fuel map which contains the new configuration of used fuel bundles and fresh fuel bundles. Section [0001] of Applicants' instant specification discloses, *"The information setting forth the <u>placement</u> of fuel bundles, each of which has various attributes, <u>in a nuclear reactor core</u> is referred to as a loading map. "* Placing the actual fuel bundles in the reactor core based upon the newly configured loading map would *actually* be a method of recovery of *nuclear fuel from a fuel pool*, and thus provide a step in Applicants' claimed method *(process)* that ties in the claim preamble with the rest of the claim limitations.

Independent claim 1 discloses, *"providing a graphical user interface that <u>allows</u> a user to selectively populate a loading map which represents fuel bundles, "* the Examiner notes that the phrase *allows* fails to clearly state the *metes and bounds* of independent claim 1 because the claim appears to cover anything and everything that does not prohibit *selectively populating a loading map that represents fuel bundles residing in at least one fuel pool, wherein the graphical user interface includes one or more loading tools for aiding a user in selecting and moving a filtered fuel pool table to a reload fuel table*. The prior art anticipates independent claim 1 so long as the reference does not prohibit a method of using a *loading tool for aiding the user in selecting and moving a filtered fuel table to a reload fuel table*. The reference would have to expressly disclose a teaching that prevents the use of a GUI by a user for populating a loading map in order to not anticipate the current claim language.

Further, the Examiner objects to the current form of independent claim(s) 1, 19 and 32

specifically, claim(s) 1, 19 and 32 are method/process claim(s), which should disclose the steps

required to perform a process. Using Applicants' independent claim 1 as an example, the

following claim language would clearly disclose a process;

A method of recovery of nuclear fuel from a fuel pool comprising: providing a graphical

user interface, selectively populating a loading map which represents fuel bundles residing in at

least one fuel pool, wherein the graphical user interface includes one or more loading tools for

selecting and moving a filtered fuel pool table to a reload fuel table, populating the loading map

with the contents of the reload fuel table, <Here is a missing step> *loading an actual fuel pool*

with at least one fuel bundle using the configuration of the loading map. <Here is another

missing step>

The example discloses all required process steps; it provides the preamble of the claim

patentable weight and removes ambiguity as regards the *metes and bounds* of the current claim

language.

2.3   As regards Applicants' arguments concerning the 35 USC § 102 & 103 rejections of the

claims, Applicants' argued:

"However, Applicants' submit that Sadoaka is completely silent with regard to graphical

user interface including one or more loading tools for aiding a user in selecting and moving a

filtered fuel table to a reload fuel table, as recited in claim 1.

The Examiner notes that as regards claim 1, there is no requirement to reject the

limitation, *"graphical user interface including one or more loading tools for aiding a user in*

selecting and moving a filtered fuel table to a reload fuel table," because of the previous phrase,

"providing a graphical user interface that <u>allows</u> a user to selectively populate a loading map

which represents fuel bundles", see section 2.1 of this office action for an explanation.

As regards independent claims 19 and 32, the *wherein* clause amended in by the

Applicants' does have patentable weight *(see Amazon.com Inc. v. Barnesandnobel.com Inc., 57*

USPQ2d 1747 (CA FC 2001) for this reason the Examiner withdraws the previous 35 USC §

102/103 rejections of those claims.

2.4   As regards Applicants' arguments regarding the *O'Sullivan* reference, the Examiner

maintains the prior art rejections for independent claim 1 as argued for the *Sadoaka* reference

and withdraws the rejections of independent claims 19 and 32.

Claim Objections

3.   Claim 1 is objected to because of the following informalities: There are two periods at

the end of independent claim 1. Appropriate correction is required.

3.1   Claim 1 is objected to because of the following claim language, *"providing a graphical*

user interface that <u>allows</u> a user to selectively populate a loading map which represents fuel

bundles, " the Examiner notes that the phrase *allows* fails to clearly state the *metes and bounds* of

independent claim 1 because the claim appears to cover anything and everything that does not

prohibit *selectively populating a loading map that represents fuel bundles residing in at least one*

fuel pool, wherein the graphical user interface includes one or more loading tools for aiding a

user in selecting and moving a filtered fuel pool table to a reload fuel table.

Claim Preamble

4.   The Examiner asserts that "recovering nuclear fuel" is only disclosed in the preamble of

the Applicants' claims and it has been determined by the Examiner that it has no patentable

weight. As recited in the MPEP, section 2111.02 [R-1] Effect of Preamble,

> The claim preamble must be read in the context of the entire claim. The determination of
> whether preamble recitations are structural limitations or mere statements of purpose or
> use "can be resolved only on review of the entirety of the [record] to gain an
> understanding of what the inventors actually invented and intended to encompass by the
> claim." Corning Glass Works, 868 F.2d at 1257, 9 USPQ2d at 1966. *If the body of a*
> *claim fully and intrinsically sets forth all of the limitations of the claimed invention, and*
> *the preamble merely states, for example, the purpose or intended use of the invention,*
> *rather than any distinct definition of any of the claimed invention's limitations, then the*
> *preamble is not considered a limitation and is of no significance to claim construction.*
> Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1305, 51 USPQ2d 1161,
> 1165 (Fed. Cir. 1999). See also Rowe v. Dror, 112 F.3d 473, 478, 42 USPQ2d 1550,
> 1553 (Fed. Cir. 1997) ("*where a patentee defines a structurally complete invention in the*
> *claim body and uses the preamble only to state a purpose or intended use for the*
> *invention, the preamble is not a claim limitation*"); Kropa v. Robie, 187 F.2d at 152,
> 88 USPQ2d at 480-81 (preamble is not a limitation where claim is directed to a product
> and the preamble merely recites a property inherent in an old product defined by the
> remainder of the claim); STX LLC. v. Brine, 211 F.3d 588, 591, 54 USPQ2d 1347, 1350
> (Fed. Cir. 2000) (holding that the preamble phrase "which provides improved playing and
> handling characteristics" in a claim drawn to a head for a lacrosse stick was not a claim
> limitation). Compare In re Cruciferous Sprout Litig., 301 F.3d 1343, 1346-48, 64
> USPQ2d 1202, 1204-05 (Fed. Cir. 2002).

The Examiner asserts that in Applicant's claim language there is no limitation that the

references cited by the examiner have to be in the, recovering nuclear fuel, *art to be analogous.*

Please see section 2.2 of this Office Action for clarification.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
subject matter which the applicant regards as his invention.

5.   Claims 1-7, 9-19 and 21-32 are rejected under 35 U.S.C. 112, second paragraph, as being

incomplete for omitting essential steps, such omission amounting to a gap between the steps.

See MPEP § 2172.01. The omitted steps are: Applicants' claim preamble sets forth the recovery

of nuclear fuel but the rest of Applicants' claims fail to provide any further steps in performing

the recovery of nuclear fuel. Amendment is required.

        Please see section 2.2 of this Office Action for clarification.

5.1   Claims 1-7, 9-19 and 21-32 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

        Claims 1, 19 and 32 are rejected because of the following claim limitation, *for aiding a*

user in selecting and moving a filtered pool table to a reload fuel table. It is unclear exactly how

a user is provided with an *"aiding"* means in the step of a process claim. The Examiner notes

that the user either moves a filtered pool table to a reload table or, doesn't move a filtered pool

table to a reload fuel table. Placing a limitation for aiding in the use of a GUI tool does not

clearly disclose the *metes and bounds* of the use of the GUI tool in a process step. The Examiner

suggests the Applicant consider claim language to describe actually *moving* the filter pool table

data to the reload fuel table instead of describing the presence of an *aid* to facilitate performing

the step of moving.

        Amendment is required.

Claim Rejections - 35 USC § 102

        The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   Claim 1 is rejected under 35 USC 102(b) as being anticipated by US Patent 4,988,476

hereafter referred to as *Sadaoka.*

6.1   As regards independent claim 1 the *Sadaoka* reference discloses *providing a graphical*

user interface that allows a user to selectively populate a loading map with <a representation

of> fuel bundles residing in at least one fuel pool, wherein the graphical user interface includes

one or more loading tools (Figure(s) 4, 7, 17, 19, 20, Col. 8 lines 66-68 can Col. 9 lines 1-16 and

in particular "Subsequently, an operator specifies a display region through input device 1 in

order to determine a position in the core which corresponds to the result to be displayed." & Col.

10 lines 22-35 *et seq.*).

It is noted by the Examiner that due to the claim language in claim 1, specifically the

phrase, *"providing a graphical user interface that allows a user to selectively populate a loading*

map which represents fuel bundles," the Examiner notes that the phrase *allows* fails to clearly

state the *metes and bounds* of independent claim 1 because the claim appears to cover anything

and everything that does not prohibit *selectively populating a loading map that represents fuel*

bundles residing in at least one fuel pool, wherein the graphical user interface includes one or

more loading tools for aiding a user in selecting and moving a filtered fuel pool table to a reload

fuel table. The Examiner notes that no teaching in the *Sadaoka* reference precludes or prohibits

the GUI from transferring data from one table to another.

7.   Claims 1-7 and 9-18 are rejected under 35 USC § 102(b) for being anticipated by

"MIROBURN-B2 TO RETRAN-3D Linking Code by Donald Hines and "CPW for

SIMULATE-3 by Kevin O'Sullivan contained in the *"Update..."* news letter, hereafter referred

to as the *O'Sullivan* reference.

7.1   As regards independent claim 1 the *O'Sullivan* reference discloses *providing a graphical*

user interface that allows a user to selectively populate a loading map with <a representation

of> fuel bundles residing in at least one fuel pool, wherein the graphical user interface includes

one or more loading tools (pages 1 & 2 and more specifically, "In both PWR and BWR versions,

the core engineer design engineer can swap assembly locations in the core or <u>"drag and drop"</u>

assemblies and their modeling data from the <u>Spent Fuel Pool or Fresh Fuel</u> locations to the

core.").

It is noted by the Examiner that due to the claim language in claim 1, specifically the

phrase, *"providing a graphical user interface that <u>allows</u> a user to selectively populate a loading*

map which represents fuel bundles, " the Examiner notes that the phrase *allows* fails to clearly

state the *metes and bounds* of independent claim 1 because the claim appears to cover anything

and everything that does not prohibit *selectively populating a loading map that represents fuel*

bundles residing in at least one fuel pool, wherein the graphical user interface includes one or

more loading tools for aiding a user in selecting and moving a filtered fuel pool table to a reload

fuel table. The Examiner notes that no teaching in the *O'Sullivan* reference precludes or prohibits

the GUI from transferring data from one table to another.

7.2 As regards dependent claim 2, *O'Sullivan* discloses a database (page 1, "The CPW is

written in Visual Basic with an ODBC <u>database</u> connection to Access, SQL, Oracle or Sybase as

well as Microsoft Excel and Word.").

7.3 As regards dependent claim 3, *O'Sullivan* discloses, attributes (page 2 Figures).

7.4 As regards dependent claim 4, *O'Sullivan* discloses, K-Infinity (page 2 "Spent Fuel Pool"

column label in the figure).

7.5 As regards dependent claims 5-7, *O'Sullivan* discloses, database management tools,

(pages 1 & 2 "Access, SQL, Oracle or Sybase as well as Microsoft Excel and Word.").

7.6 As regards dependent claims 9-11, *O'Sullivan* discloses, fresh fuel bundles (page 2

"Fresh Fuel Listing").

7.7 As regards dependent claim 12, *O'Sullivan* discloses, fresh fuel bundles (page 2 "Fresh

Fuel Listing") and a GUI (Figures, page 2).

7.8 As regards dependent claim 13, *O'Sullivan* discloses, database management tools (pages

1 & 2 "Access, SQL, Oracle or Sybase as well as Microsoft Excel and Word.") and fresh fuel

bundles (page 2 "Fresh Fuel Listing").

7.9 As regards dependent claim 14, *O'Sullivan* discloses, a list of fresh fuel bundle types

(page 2 "Fresh Fuel Listing").

7.10 As regards dependent claim 15, *O'Sullivan* discloses, database tools for sorting, (pages 1

& 2 "Access, SQL, Oracle or Sybase as well as Microsoft Excel and Word.") and fresh fuel

bundles (page 2 "Fresh Fuel Listing").

7.11 As regards dependent claim 16, *O'Sullivan* discloses different GUI tools for loading fresh

bundles (pages 1 & 2 and more specifically, "In both PWR and BWR versions, the core engineer

design engineer can swap assembly locations in the core or "drag and drop" assemblies and their

modeling data from the Spent Fuel Pool or Fresh Fuel locations to the core." Page 2 "Fresh Fuel

Listing").

7.12 As regards dependent claims 17 & 18, *O'Sullivan* discloses reactor cores (page 2 "Fresh

Fuel Locations to the core") and fuel pools ("Spent Fuel Pool").

Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter:

8. As regards independent claims 19 and 32, the following is an Examiner's reasons for

indicating allowable subject matter:

While US Patent 4,988,476 *Sadaoka* discloses *a method of recovering nuclear fuel from

a fuel pool, using a Graphical User Interface* and "MIROBURN-B2 TO RETRAN-3D Linking

Code by Donald Hines and "CPW for SIMULATE-3 by Kevin O'Sullivan, teaches *a method of

recovering nuclear fuel from a fuel pool, using a Graphical User Interface*, **none of these

references taken either alone or in combination with the prior art of record disclose,**

moving data from a filtered fuel pool table to a reload table, specifically including:

(claim 19) "…wherein the populating step is performed via a graphical user interface that

includes one or more loading tools for aiding a user in selecting and moving a filtered fuel table

to a reload fuel table."

(claim 32) "…using a graphical user interface having one or more loading tools for aiding

a user in selecting and moving a filtered fuel pool table to a reload fuel table."

These limitations in combination with the remaining elements and features of the claimed invention are what define Applicants' invention over the prior art of record.

8.1 Dependent claims 21-31 are allowable for at least the reason that they depend upon an allowed base claim.

8.2 Claims 19 and 21-32 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Conclusion

9. The Examiner notes that a phone message was left for the Applicants' Attorney, Gary D. Yacura on 12 July 2006, no response has been received by the Examiner as of the date of this Office Action.

9.1 Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.
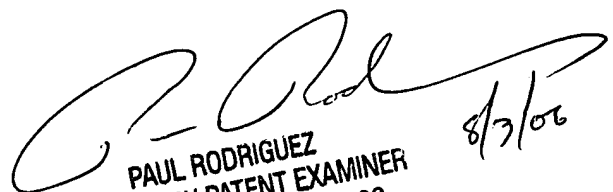
9.2   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dwin M. Craig whose telephone number is (571) 272-3710. The

examiner can normally be reached on 10:00 - 6:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Paul L. Rodriguez can be reached on (571) 272-3753. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

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like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DMC

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